

Sub B1

ABSTRACT

5 Disclosed is an optical glass having high-  
refractivity and low-dispersion optical properties and having  
a low glass transition point so that a heat-treating furnace  
can be operated for a long period of time.

10 The present invention provides an optical glass  
having a refractive index  $n_d$  of at least 1.875, an Abbe's  
number  $v_d$  of at least 39.5 and a glass transition point  $T_g$  of  
700°C or lower, an optical glass which is a borosilicate  
glass comprising at least one selected from  $\text{La}_2\text{O}_3$ ,  $\text{Gd}_2\text{O}_3$ ,  $\text{Y}_2\text{O}_3$   
or  $\text{Yb}_2\text{O}_3$  and at least one selected from  $\text{ZrO}_2$ ,  $\text{Ta}_2\text{O}_5$  or  $\text{Nb}_2\text{O}_5$ ,  
wherein the ratio (weight ratio) of the total content of  
15  $\text{La}_2\text{O}_3$ ,  $\text{Gd}_2\text{O}_3$ ,  $\text{Y}_2\text{O}_3$  and  $\text{Yb}_2\text{O}_3$  to the total content of  $\text{SiO}_2$  and  
 $\text{B}_2\text{O}_3$  is from 3.2 to 5 and the ratio (weight ratio) of the  
total content of  $\text{ZrO}_2$ ,  $\text{Ta}_2\text{O}_5$  and  $\text{Nb}_2\text{O}_5$  to the total content of  
 $\text{SiO}_2$  and  $\text{B}_2\text{O}_3$  is from 1.1 to 1.5, and which has a refractive  
index  $n_d$  of at least 1.875 and an Abbe's number  $v_d$  of at  
20 least 39.5, and the like.

10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100